

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

26 Jun 2026

### The effect of 8 weeks resistance training and 4 weeks no training on left ventricular morphology of the male athletes

#### Protocol summary

##### Summary

In the present study, twenty males athletes from endurance sports will participate voluntarily, based on the inclusion criteria for entering the test as a statistical sample. Subjects will be evaluated for echocardiography based on the time and space setting for three months in four stages including baseline measurement and one, two months after the performance of the resistance training protocol and after four weeks of no training individually and by two testers in Cardiology and Cardiology clinic. Also, the anthropometric and body composition (height, weight, body mass index, body surface area, body fat percentage and lipid mass) of the subjects will be evaluated. With the start of the main research phase, the values of the cardiac variables of each subject including: left ventricular mass, diastolic diameter and left ventricular systole, ventricular wall thickness of the end of diastole stage and systole, and posterior wall thickness of the diastole stage and left ventricular systole will be measured by using of point-to-point color Doppler echocardiography, individually, at noon, and after an hour of placement of the subject in resting position in four test cycles (before the beginning of the resistance training program, one and two months after the exercise, and after 4 weeks of no training).

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2017071732873N4**  
Registration date: **2017-07-28, 1396/05/06**  
Registration timing: **prospective**

Last update:

Update count: **0**

##### Registration date

2017-07-28, 1396/05/06

#### Registrant information

##### Name

Farzad Zehsaz

##### Name of organization / entity

Islamic azad University, Tabriz Branch

##### Country

Iran (Islamic Republic of)

##### Phone

+98 41 3196 6245

##### Email address

f-zehsaz@iaut.ac.ir

#### Recruitment status

##### Recruitment complete

#### Funding source

Investigator

#### Expected recruitment start date

2017-08-23, 1396/06/01

#### Expected recruitment end date

2017-08-29, 1396/06/07

#### Actual recruitment start date

empty

#### Actual recruitment end date

empty

#### Trial completion date

empty

#### Scientific title

The effect of 8 weeks resistance training and 4 weeks no training on left ventricular morphology of the male athletes

#### Public title

The effect of training and detraining on the left ventricle of male athletes

#### Purpose

Prevention

#### Inclusion/Exclusion criteria

Inclusion criteria: male endurance athletes; at least 2 years of regular exercise experience; from Ardabil City; healthy Exclusion criteria: having any illness; using any

drug

### Age

From **18 years** old to **23 years** old

### Gender

Male

### Phase

N/A

### Groups that have been masked

*No information*

### Sample size

Target sample size: **20**

### Randomization (investigator's opinion)

N/A

### Randomization description

### Blinding (investigator's opinion)

Not blinded

### Blinding description

### Placebo

Not used

### Assignment

Single

### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Tabriz Islamic Azad University

##### Street address

Medical Faculty, Tabriz Islamic Azad University  
Campus, Pasdaran Highway

##### City

Tabriz

##### Postal code

5157944533

#### Approval date

2017-04-18, 1396/01/29

#### Ethics committee reference number

IR.IAU.TABRIZ.REC.1395.56

## Health conditions studied

### 1

#### Description of health condition studied

The left ventricular morphology of the heart

#### ICD-10 code

Symptoms,

#### ICD-10 code description

R09.8

## Primary outcomes

### 1

#### Description

left ventricular mass, diastolic diameter and left ventricular systole, ventricular wall thickness of the end of diastole stage and systole, and posterior wall thickness of the diastole stage and left ventricular systole

#### Timepoint

Before intervention and after 1 and 2 months of the performing resistance training and after 4 weeks detraining

#### Method of measurement

By using of point-to-point color Doppler echocardiography (EsaoteMylab)

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Each of the resistance training periods includes 3 sessions of 90 minutes upper and lower extremities weight training in 6 repetitions and 3 sets in 40, 60 and 80% intensity of a maximum repetition, and the period of warm up and return to the initial state. So that at the end of the first four weeks of resistance training, a record of a maximum repetition in 8 movement of the leg and chest press, the scout, the long, the lift, the propeller, the press, and the biceps with the barbell were measured again and the intensity of the exercises in the next month program based on the record for a new maximum repeat will be set and administered.

#### Category

Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Ardabil Sport Clubs

##### Full name of responsible person

Farzad Zehsaz

##### Street address

Physical Education Department, Tabriz Islamic Azad University Campus, Pasdaran Highway

##### City

Tabriz

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Tabriz Islamic Azad University

**Full name of responsible person**

Dr. Naser Modir Shahla

**Street address**Research Deputy of Islamic Azad University of Tabriz,  
Tabriz Islamic Azad Campus, Pasdaran Highway**City**

Tabriz

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Tabriz Islamic Azad University

**Proportion provided by this source**

100

**Public or private sector***empty***Domestic or foreign origin***empty***Category of foreign source of funding***empty***Country of origin****Type of organization providing the funding***empty***Person responsible for general inquiries****Contact****Name of organization / entity**

Tabriz Islamic azad University

**Full name of responsible person**

Elaheh Panahi

**Position**

M.Sc. student

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Ph.D. in Exercise Physiology

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**Web page address****Sharing plan****Deidentified Individual Participant Data Set (IPD)***empty***Study Protocol***empty***Statistical Analysis Plan***empty***Informed Consent Form***empty***Clinical Study Report***empty***Analytic Code***empty***Data Dictionary***empty*